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Dress for Safety on Farm and Ranch

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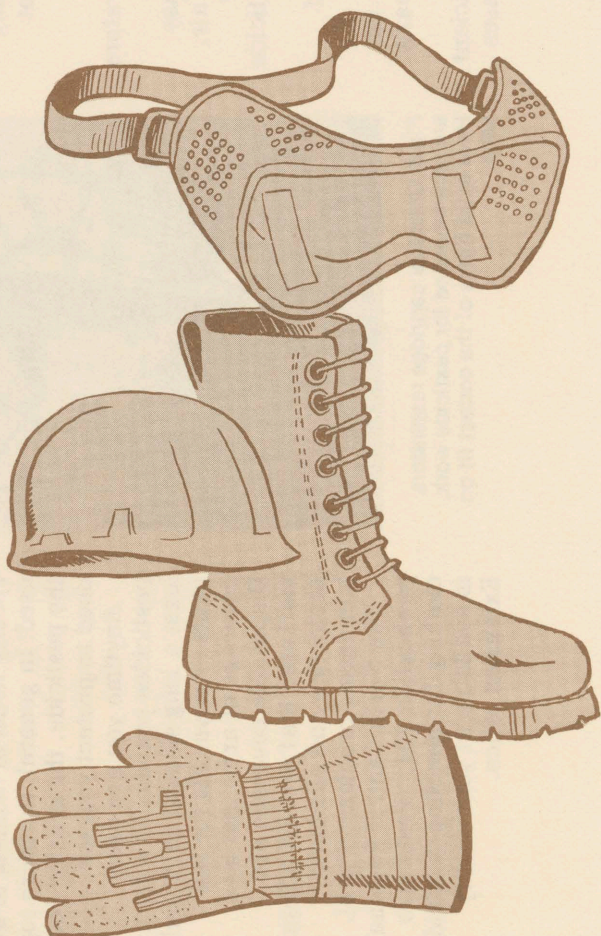
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Dress for safety

on farm and ranch



Cooperative Extension Service
South Dakota State University
U.S. Department of Agriculture

Dress for safety on farm and ranch

Linda Manikowske

Extension clothing and textiles specialist

The farm management tools of the 80s appear to be mostly cash-flow sheets, computers, the other high-tech devices that allow South Dakota farmers and ranchers to minimize their risks and operate for one more season.

Nevertheless, a farmer faces a greater risk every day, one that he tends to forget about—until it happens. It is a risk of a farm accident or an occupational illness. The impact of crippling, pain, even death hasn't changed over the years. In other days, however, there was the comfort of neighbors with time to help out, of a banker who would extend a loan. In the 80s, even a minor farm accident may now lead to another farm sale.

It has always been important but it is more critical now than ever that we minimize our chances of farm accidents and occupational illnesses.

Fortunately, these high-stress times are also high-tech times for personal protection. There are safety devices, protective clothing, and much information available to help us avoid or minimize the risk.

But no one is going to force a farmer to take any safety precautions. Safety has to start with you. Safety measures are **required** in many industries, and workers **must** wear protective clothing. In farming and ranching, the responsibility rests solely with the individual.

According to the National Safety Council, agricultural work accidents result in nearly 1,900 deaths and 175,000 disabling injuries **each** year, not counting the additional occupational illnesses and chronic health problems. Nearly half of the reported work injuries might

have been prevented or made less severe if the victims had been wearing appropriate protective clothing.

Shield your hands

You need a variety of work gloves. The right gloves for moving bales are not the right gloves for spreading chemicals. Size is also important. Gloves that are too large are easily caught on moving parts of equipment.

Hand and finger injuries are common in agriculture. Proper work gloves can prevent or reduce the severity of many hand injuries and most skin irritations caused by grease, dirt, and chemicals.

Cotton gloves work well for handling light materials and provide adequate protection for routine farm tasks.

Leather gloves are better for the tough jobs. They help give a good grip, resist sparks, chips, and rough or sharp objects, and provide some cushioning against blows (Fig 1).

Pesticide label instructions require the use of gloves. Studies have shown that the hands are the area of the body which receives the largest exposure to pesticides. Wear gauntlet type or

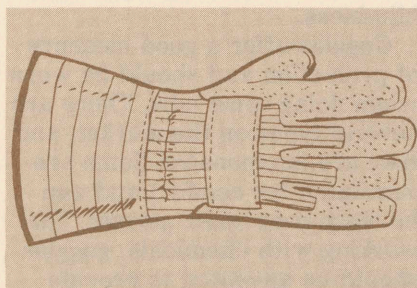


Fig 1. Leather gloves are comfortable, flexible, and a protective "second skin."

elbow length neoprene or rubber gloves. They come in a variety of thicknesses. They should be unlined so they can be easily washed inside and out after each use (Fig 2).

Leather or fabric gloves readily absorb pesticides; and once contaminated, they will be a continual source of exposure to your hands.

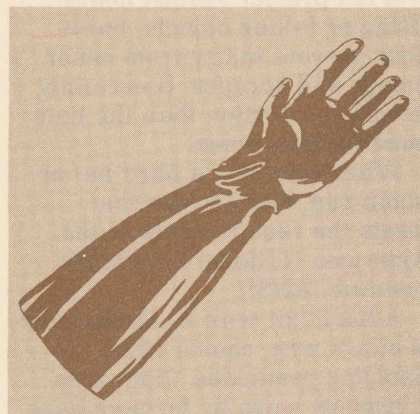


Fig 2. Super-long rubber or neoprene gloves are necessary for pesticide work. You must protect wrists and arms as well as hands.

Watch your feet

Most foot and toe injuries occur when animals step on them, vehicles run over them, or moving machinery parts or falling objects hit them. Even if none of these happens, you can take a bad fall if you have inappropriate footwear.

Safe footwear is available that features a steel toebox and a slip-resistant, puncture-proof sole. Bought to fit, they're more comfortable than most other choices you could make (Fig 3).

When working with highly toxic liquid pesticides, wear knee-length rubber or neoprene unlined boots. Leather or canvas

shoes can readily absorb liquids and will re-expose your feet whenever you wear them.

Use your head

The National Safety Council says that 7% of all farm accidents involve injuries to the head. This is about the last part of the body we ever think of protecting.

The famous "hard hat" required in many industries has its place on the farm, too. A hard hat has a rigid shell and an inner web suspension which can be adjusted to fit the individual wearer. The space provided by this suspension is part of the protection from blows to the head by flying or falling objects (Fig 4).

A bump cap is lighter and closer fitting than a hard hat. It will not protect against heavy flying or falling objects, but it does prevent injury from minor bumps and scrapes. It certainly is more protection than the hats most farmers wear.

When selecting a hard hat or bump cap, look for one that meets the requirements of the American National Standards Institute (ANSI).

A hard hat with a plastic band is also a wise choice when applying pesticides. Cloth hats commonly worn by farmers have leather or fabric sweatbands which absorb pesticides. Since

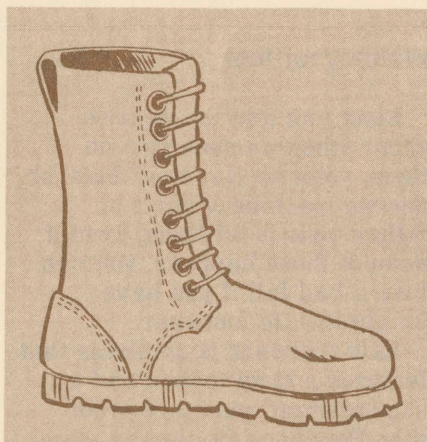


Fig 3. Steel toed, waffle soled boots give comfort and support as well as protection. About the worst you can say about well-fitting ones is that they will far outlast their original shine.



Fig 4. Anything less than a hard hat invites accidents. Choose a plastic band if you work with chemicals.

the pesticides don't readily wash out in laundering, they will continue to expose the scalp and forehead to the pesticides whenever worn again.

Another recommended type of headgear is a wide-brimmed water-proof hat. This keeps pesticides away from the neck, mouth, and face.

Protect your eyes

Eyes **attract** foreign objects—flying chips, sawdust, broken parts, anything that will move and is small enough. Once in the eye, these particles are painful enough. If they lodge there when you're driving a tractor, the very **best** thing that might result is an interesting pattern of tire tracks.

Other major farm eye hazards are anhydrous ammonia fertilizer and other farm chemicals. Splashed in your eyes, these liquids can cause permanent vision damage or blindness.

Goggles offer a good measure of protection and should be worn when doing some jobs. There are several types on the market, and they are inexpensive. Some are ventilated for comfort and can be worn over other glasses. For working with chemicals, goggles should be unvented to provide protection against splash and vapors (Fig 5).

If you do wear glasses or sunglasses, they should have industrial quality safety lenses which are shatterproof.

Save your hearing

There's a very good chance that the farmer you know has already lost part of his hearing. Farmers are more likely to have hearing loss than people in almost any other occupation.

Eliminating noise in the countryside or avoiding long exposure to it may be impossible. But there is protection available. Acoustic ear muffs and ear inserts are two common types.

Ear muffs look like stereo headphones. They are easy to use and can be worn for long periods with comfort (Fig 6).

Ear inserts are similar to hearing aids and are placed in the ear canal; they are visible only at close range. They are available as pre-formed or custom-molded rubber or plastic plugs. They must fit well for good protection. If you'll be using them regularly, have them custom fitted. Insert into only clean ears; trapped dirt will irritate and perhaps infect.

Cotton puffs or swimming ear plugs are not adequate protection.

The wearing of ear protection can reduce ringing in the ears and stress on the worker in addition to preventing hearing damage. Ringing is an indication that noise levels are too high and protection is needed.

Guard your lungs

Dust, chaff, pollen, mold, and many chemicals are problems

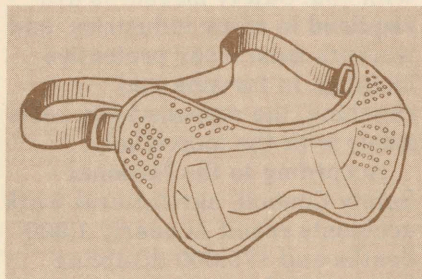


Fig 5. There are two major types of goggles. Pick the unvented style if you work with chemicals.



Fig 6. Headphone ear muffs are comfortable, attractive, and very important. Farming is a high-risk occupation for hearing loss.

with which agricultural workers will always have to contend.

Respiratory equipment can prevent serious accidents, illness, or even death when you are working in enclosed areas that lack sufficient oxygen or contain toxic gases. Protection for your lungs is required in these cases. But even under more normal farming operations you may want or need to use one of three types of respiratory protective devices: (1) One kind cleans the air you breathe with screening filters. (2) Another purifies the air by absorbing or repelling harmful materials. (3) The third supplies air from an external source.

Filter respirators can be worn when harvesting or when cleaning grain storage but should not be used when spraying chemicals or working with toxic gases. They do not protect from these types of hazards (Fig 7).

Chemical cartridge respirators protect against many gases, vapors, and sprays, since they absorb contaminants in the air. These are recommended for outdoor protection from pesticide vapors. It is necessary to purchase the correct type of filter and follow the manufacturer's instructions for use and care. Filters are clearly labeled for use (Fig 8).

But where there is insufficient oxygen or there are toxic gases

present, you must supply your own air. Some type of self-contained apparatus such as a portable air tank can be strapped to your back. Even then, have someone nearby to help if you run into trouble.

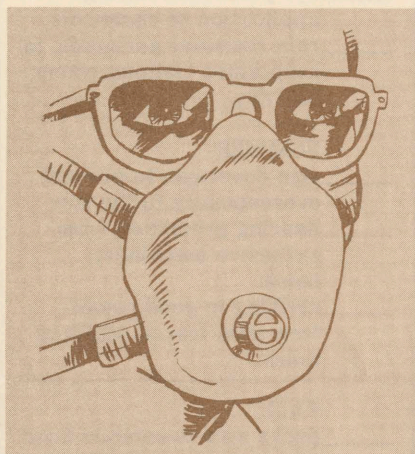


Fig 7. Filter respirators clean the air you breathe of dust and pollen. They do not protect from chemicals or toxic gases.

Don't go into this kind of situation without another person around.

Any respiratory protection equipment you select should be approved by the National Institute of Occupational Safety and Health (NIOSH). All devices should specify the conditions for which they are designed and should fit properly.

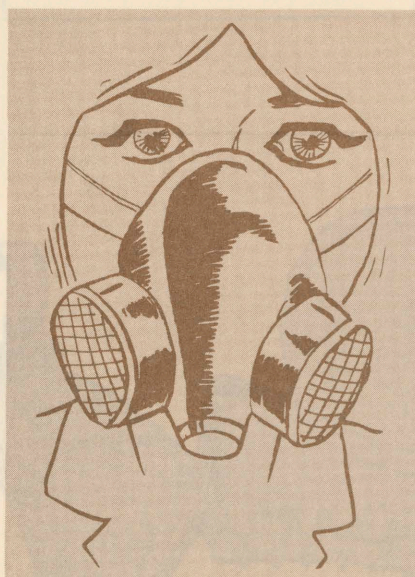


Fig 8. Chemical cartridge respirators are recommended for pesticide work. Have extra filters of the correct fit on hand.

Keep clothes clean, in good repair

It's not enough to depend only on protective safety devices.

Your everyday clothing can protect you from farm accidents, too, **if** it is appropriate to the activity and **if** it is in good repair.

Open jackets, flapping sleeves, and frayed edges can be easily caught in power equipment. Loose hems, especially at the bottom of pant legs, can cause falls.

Garments that are dusty, dirty, soaked with oil or solvent, or contaminated with chemicals can cause skin irritations. Clothes worn while mixing and applying chemicals should be washed after each wearing. Specific information on laundering pesticide contaminated clothing is available from your county Extension office.

More about pesticides

Suggestions have been made in this publication for protecting various parts of the body from exposure to pesticides. All pesticides are toxic. They differ only in degree of toxicity.

Pesticides labeled CAUTION are slightly toxic; those labeled WARNING are moderately toxic; and those labeled DANGER are highly toxic.

The type of protective clothing you need depends on the toxicity and the type of formulation (liquid, granule, etc). Some labels specify items of clothing to be used. In general, the more toxic the pesticide, the greater your need to protect yourself.

Anytime you are using pesticides you should wear at least a long-sleeved shirt and pants or coveralls for full coverage of arms and legs. Disposable coveralls are marketed that provide adequate protection and eliminate laundering problems (Fig 9).

The North Central Regional publication 204, "Protective clothing for handling pesticides," is available at your county Extension office.



Fig 9. Special coveralls protect you when working with chemicals. They are disposable, meaning you don't need to worry about infesting the wash tub or re-exposing yourself since you won't wear them twice.

Seasonal safety

Protective clothing for farm and ranch workers varies with the season. Use the following checklist as a guide.

SPRING

- layered clothing, to allow for adjustment to changing temperatures.
- eye protection during application of chemicals.
- rain resistant garments, to keep inner clothing warm and dry.

SUMMER

- skin coverage, to prevent overexposure to the sun.
- hearing protection from excessive machinery noise.
- clothing in good repair, free from frayed edges or tears.

FALL

- parka and sweatshirt hood strings tied.
- non-flammable clothing when burning leaves or ditches.
- wrist jewelry, rings, and neck chains removed or covered.

WINTER

- warm hat, to conserve body heat and protect ears from cold.
- non-slip, heavy-soled footwear.
- extra insulation and windproof garments.

Safety clothing and equipment suppliers

Clothing and equipment items suggested in this publication may not be readily available in some communities. Ask local retailers if they can obtain such items for you. If not, your county Extension office has a list of manufacturers and suppliers that handle approved equipment.

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Reviewers are Bob Durland and Jerry Lush, Extension agricultural engineers, and Janet Dickerson, Lake County Extension agent—home economics.

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